

21. DISTRIBUTION OF THE KEELED BOX TURTLE *PYXIDEA MOUHOTII* (GRAY)

The keeled box turtle *Pyxidea mouhotii* (Gray) is one of the several little-known terrestrial emydid turtles inhabiting the tropical forests of south and south-east Asia. It is identifiable by its conspicuously flat-topped tricarinate shell, weak plastral hinge, deeply serrated posterior marginals and presence of tubercles at the base of the tail and on the thighs.

The types of *Pyxidea mouhotii* were collected by the artist-explorer Henri Mouhot from the Laos mountains on the 'Annam-Siam border' (Gray 1862) and are at the British Museum (Natural History), London. Pritchard (1979) gives the distribution of the species as Laos, Viet Nam and Hainan Island, while Pope (1935) reports it from Namfong in Hainan, China, mentioning that the species is also known from Indo-China, including Tongking. Both the authors omit Assam, from where an earlier worker, Smith (1931) had reported the species. Wirot (1979) mentions of the occurrence of the turtle from the northern region of Thailand, from the Chiang Rai, Chiang Mai and Mae Hong Son Provinces.

Several specimens of *Pyxidea mouhotii* have been collected from India, and are now in the National Zoological Collection, Zoological Survey of India, Calcutta, and the British Museum (Natural History), London. Here I present a discussion on the distribution of this little-known species, based on these and other records.

Material at the Zoological Survey of India, Calcutta, collected by Captain Williamson in 1872 include three specimens (Reg. Nos. 14, 708 and 1016) from the Garo Hills presently under Meghalaya and one (Reg. No. 709) whose locality is given as 'Assam'. More recently, a single example (Reg. No. 23923) was

collected by a Z.S.I. expedition to Namdapha, Arunachal Pradesh. This specimen was collected on 27.4.1981 from Deban, 27 Km. east from Miao, in the Tirap District, and is an extension of range of *Pyxidea mouhotii* by atleast 350 Km. to the north-east. This example, which was collected from the rocky bank of a stream inside a forest, has distinct tubercles on thigh measuring upto 4 mm.

The British Museum (Natural History), South Kensington, London has a fairly large collection of the species, including the types collected by Mouhot from 'Lao Mountains' and an adult shell, presented by T. C. Jerdon and labelled 'Cachar'? (Reg. No. 70.11.29.53). Smith (1931) mentions of a British Museum specimen which he provisionally referred to the present species. This example, BM(NH) Reg. No. 98.12.20.1, a well preserved hatchling with an egg-caruncle is registered as from 'Eastern Assam hills, probably North Cachar near Barail Range'. Standard measurements of the specimen taken with vernier calipers have been given below :

British Museum (Natural History) Reg. No. 98.12.20.1. Carapace length 39.2 mm., carapace breadth 30.7 mm., plastron length 35.0 mm., shell height 18.85 mm., tail length (vent to tip) 16.75 mm.

As mentioned by Smith (op. cit) the specimen is unusual in several aspects. Perhaps the most striking among these is the tail which exceeds the length of the plastron. However, it matches the description of the species in the possession of a flat-topped, tricarinate shell, markedly serrated posterior marginals, a long and narrow nuchal shield, short but distinct bridge, strongly hooked upperjaw, large shields on the posterior part of the forehead and on the forelimbs and half-webbed digits.

The carapace of this unusual specimen is chocolate-brown, the vertebral keel brownish-yellow edged with dark brown. The plastron is chrome yellow with a single large chocolate-brown patch in the middle, and inframarginals of the same colour, as opposed to the usual plastral pattern of dark brown spots on a yellow-brown background. The head is brown with a yellow spot and streak behind each eye.

The known range of the species is therefore Tirap District, Arunachal Pradesh and Garo Hills, Meghalaya, possibly also North Cachar Hills, Assam, in India. Extralimitally, it is

known from Chiang Rai, Chiang Mai and Mae Hong Son Provinces in Thailand, Laos, Vietnam and Namfong in Hainan, China.

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22. BREEDING THE KING COBRA (*OPHIOPHAGUS HANNAH*) IN CAPTIVITY (With a photograph)

In December 1982 the Madras Snake Park Trust (MSPT) obtained on breeding loan a 4.0 m, 6.5 Kg. male king cobra (*Ophiophagus hannah* Cantor) from the Mangalore Wildlife Trust in Karnataka to mate with the Park's three six year old females which were born and raised in captivity. Copulation between the male and the smallest of the three females was observed on several occasions in February 1982. Forty five days after the last observed

mating this female laid a clutch of 23 premature, unviable eggs under a small mound of bamboo leaves that she had gathered from the floor of the enclosure. Another female that had appeared to be gravid did not lay any eggs. Our first attempt to breed king cobras in captivity was therefore unsuccessful.

In November 1983 the experiment was tried again with the same male. Matings occurred in February and March 1984 and resulted in